



# UNIVERSITY OF HAWAII SYSTEM

## Legislative Testimony

---

Testimony Presented Before the  
House Committee on Finance  
Wednesday, February 19, 2020 at 4:00 p.m.

By  
Nicholas Comerford, Dean  
College of Tropical Agriculture and Human Resources  
And  
Michael Bruno, PhD  
Provost  
University of Hawai'i at Mānoa

### HB 1819 HD2 – RELATING TO HEMP

Chair Luke, Vice Chair Cullen, and members of the House Committee on Finance:

Thank you for this opportunity to testify in support of HB 1819 HD2. This bill has a number of tasks given to the Hawai'i Department of Agriculture (HDOA) and we follow the lead of the HDOA as they are best prepared to comment on their aspects of the bill.

The future of Hawai'i agriculture will thrive based on diversity of crops, quality of crops, and utility of crops for both Hawai'i use and export. The use of hemp is versatile. It can be used for clothing, food supplements, animal feed, construction, medicinal products and various non-medicinal products.

Hemp is one of those crops that should be considered for its potential. Yet, there are challenges and misinformation that must be addressed through research.

1. Marijuana and hemp are the same species, only separated by the concentration of THC. Below 0.3% THC it is hemp, above 0.3% THC, it is marijuana. When the crop becomes marijuana, the crop is destroyed. This would not be a problem if the level of THC was stable, which it is not. Last year in Hawai'i, over 50% of the acreage grown had to be destroyed because of the high level of THC. As long as the level is set at 0.3%, this will continue to be a problem. We cannot recommend the production of hemp until we can recommend cultivars and/or management regimes that control the level of THC. This means that we need to understand (a) what causes this instability; and (b) if that is understood from a basic or applied knowledge base, can we manage it? For example, if THC responds to a particular kind of stress (THC is a secondary metabolic product, which can be stress related), can we grow hemp under conditions that would control the stress and stabilize the level of THC below the break point?
2. What will the main product be from hemp production? Given the falling prices in CBD (prices dropped 30% in May of last year and continues to drop), Hawai'i

can't compete in the mainland market. A good analysis of the economics of the local hemp market would be useful in order to understand the potential of in-state use of hemp biomass. However, if seed production is the main crop, then THC stability of all cultivars, no matter where they are grown for profit (mainland for example), will be an issue. If the product is an extractive of hemp, then it will depend on developing new products that can compete in the market. CTAHR has the expertise to develop new products in the Molecular Biosciences and Bioengineering Department.

3. There are a number of misconceptions around growing hemp. First, it has been said that it does not need to be fertilized or requires very low levels of fertilization. That is not true. As long as a crop removes nutrients in its biomass, they will eventually need to be replaced. Second, it has been said that it is resistant to pests. That also is not true. A wide variety of pests attack hemp, including aphids, budworms, cutworms, corn-borers, stink bugs, and hemp borers to name a few. As more acres are planted, more issues will evolve. An Integrated Pest Management Program focused on hemp would be advisable.

Based on the above, it is clear that producing hemp in Hawai'i will be a challenge. Proper management related to THC levels, identification of THC stable cultivars (if they exist), developing of new cultivars, and identification of viable markets are all challenges to be addressed by research which CTAHR is qualified to do.

Thank you for the opportunity to submit testimony in support of HB 1819 HD2 with deference to HDOA's comments on their component of the legislation; and provided that its passage does not replace or adversely impact priorities as indicated in our BOR Approved Budget.